

Abdominal petiole usually longer than the hind coxae and smooth; median segment not areolated. Anachares Dalman

(Type *Cynips eucharoides* Dalm.)

4. *Mesonotum* with distinct parapsidal furrows. *Acothyreus* Ashmead¹

(Type *A. oceola* Ashm.)

Mesonotum smooth, without parapsidal furrows. *Synapsis* Förster

(Type *S. agrisgranensis* Först.)

LIFE HISTORIES OF NORTH AMERICAN GEOMETRIDAE.—XXXIX.

BY HARRISON G. DYAR, WASHINGTON, D. C.

Therina fiscellaria Guen. The larva has been much confused. It is apparently this one referred to by Packard as *T. fervidaria* in Mon. Geom., p. 494, Rept. U. S. dept. agric., 1886, p. 329, and 5th Rept. U. S. ent. comm., p. 186. In the latter publication the description of *T. endropiaria* on p. 187 is of this species, Riley's specimen being before me. I have referred to these descriptions previously (PSYCHE, vol. 9, 11, 1900), but have made there an error in regard to the food plant of *T. fervidaria* (lines 6 to 8, second column); it is really spruce as Packard gives it. The life history of *T. fiscellaria*, here given, was obtained from moths kindly sent by Mr. H. S. Williams of Rockledge, Florida, in May. The first larvae were matured in August and the moths appeared again in September.

EGG. Elliptical, the narrow diameter only slightly flattened in a small area on the middle of the side; truncation forming a decided rim, but elevated centrally; depressed end rounded, almost like the other end. Surface smooth, except for very fine, roundedly hexagonal, moderately distinct reticulations, all over it, becoming a little larger at the antemicropylar end. The minute pores at the angles show whitish in the shadow. Olivaceous green, shining, turning dull reddish. Size $.9 \times .6 \times .5$ mm. Hatched in two weeks.

STAGE I. Head rounded bilobed, erect, free, rather large, mouth pointed; dull dark brown, darker in the sutures, lighter on the faces of the lobes, eyes black; width .3 mm. Body cylindrical, normal, moderately elongated, feet normal slender, the abdominal ones rather long; segments slightly enlarged centrally. Grayish white, a shaded dark gray broad dorsal band, narrowed in the incisures and absent at the ends. A subgeminata, darker, narrower and more distinct subdorsal band, fainter at the ends but continuous, narrowed and confluent in the incisures. A similar subventral band, geminate, but segmentarily, macu-

¹ In all cases I retain the original spelling of genera, *Eucoila*, not *Eucoila*, *Acothyreus* not *Acontothyreus* etc.

lately joined. A series of large, segmentary, ventral, clouded spots on the legless segments. Feet all pale; no shields; setae short, stiff, white; tubercles imperceptible. Segments obscurely, rather numerously annulate.

STAGE II. Head rounded, lobes large, full, but not bulging before, a little wider than high; white, a faint gray shade over vertex; tubercles dark as also sutures of clypeus and ocelli; width .5 mm. Body moderate, normal, whitish with a bark gray tint; dorsal space broadly pale, containing black tubercles i and ii, bordered by a double black lateral band broken into dashes. A more continuous and grayer subventral band. Feet and venter pale, tubercles dark, setae short, pale. Segments finely, faintly annulate. No shields. The marks get fainter with growth, the general appearance being light, whitish gray.

STAGE III. Head rounded bilobed, moderate, white, very faintly grayish reticulate, small black dots on tubercles and at apex of clypeus; width .9 mm. Body segments finely irregularly annulate, grayish white, the dorsal line more translucent; black dots on tubercles i and traces of the former lines as rather remote dots and streaks laterally and suprastigmatally, not forming well traceable lines. Subdorsal and subventral bands rather whiter than the general color. Feet all pale; setae obscure; tubercles black marked.

STAGE IV. Head the same, the face a little more black dotted, quite thickly so in the vertical suture; width 1.3 mm. Sides of body faintly grayish between the broken black lines, indicating a broad lateral shade. Dorsal space white, centered with a luteous line. Tubercles black.

STAGE V. Head rounded, low bilobed, thick; white, luteous freckled, blackish in incisure with distinct black dots on the tubercles; ocelli black; width 1.9 mm. Body rather slender, moderately elongate; nearly white, the ground color pale luteous with straight white subdorsal line and wavy irregular one in dorsal space, narrowly and obscurely black edged; a wavy suprastigmatal line, black edged; an irregular white band on subventral fold not distinctly edged and a broad subventral band, straight like the subdorsal, black and brown edged. Tubercles small black; feet pale; spiracles black; general appearance very light bark gray, the lines not contrasted with the ground color.

STAGE VI. Head rounded, bilobed, narrowed a little above, lobes full before. Fleshly white, faintly mottled with light brownish; tubercles marked by distinct round black dots; width 2.3 mm. Body normal, moderate, smooth, a scarcely indicated dorsal elevation on joint 12. Ground color pale brown, dorsal tubercles marked by small black dots. Dorsal space reddish brown, containing an addorsal irregular white line, all edged by six crinkled brown lines; a broad fleshy white subdorsal line, sometimes partly orange filled; lateral space whitish, partly brown and black filled, containing a lateral irregular whitish line, all edged by four crinkled black lines, more or less incised and broken; a broad white substigmatal band; subventral space brown, edged by two crinkled brown lines; a white subventral band; pedal space whitish, edged by brown lines; a white ventral band containing segmentary gray spots. Feet pale, brown bordered and black dotted; spiracles black; no shields; setae small, dark.

Pupa in a slight cocoon of leaves and coarse silk, whitish, spotted and streaked as described by Packard.

The larvae fed on several species of oak.